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Podocin mutations in sporadic focal-segmental glomerulosclerosis occurring in adulthood

To the Editor: Podocin is a key component of the podocyte slit diaphragm. Mutations of podocin cause recessive steroid-resistant nephrotic syndrome that evolves to renal failure in early childhood [1]. They have also been found in children with sporadic nephrotic syndrome [2] and variable outcome including patients with steroid and cyclosporine sensitivity [3].

Herein, we present the results of podocin mutation screening in 64 adults with steroid resistant nephrotic syndrome, showing the presence of heterozygous mutation in three. Two were new mutations [i.e., S211T and H325Y (Fig. 1)]; the remaining one (i.e., P20L) was frequently observed in children. New mutations determine an amino acid change in exon 5 (nucleotide 631 T->A) and exon 8 (nucleotide 973 C->T), respectively, being the wild-type conserved in mouse and rat (Fig. 1). Clinical features were comparable in the three patients. All were unresponsive to drugs (steroids and cyclosporine) and progressed to end-stage renal failure. Age at onset of proteinuria varied from 21 and 34 years in the case of H325Y and S211T, respectively, and to 60 years of the patient with the P20L. Focal-segmental glomerulosclerosis (FSGS) was present in the two patients for whom a renal biopsy was available (H325Y and S211T). The same two patients received a renal transplant and recurrence occurred in one patient.

These data describe podocin mutations in adults with FSGS and confirm the association with a wide range of clinical characteristics. Molecular analysis of podocin should be extended to adults with FSGS since may modify the therapeutic approach in these patients.

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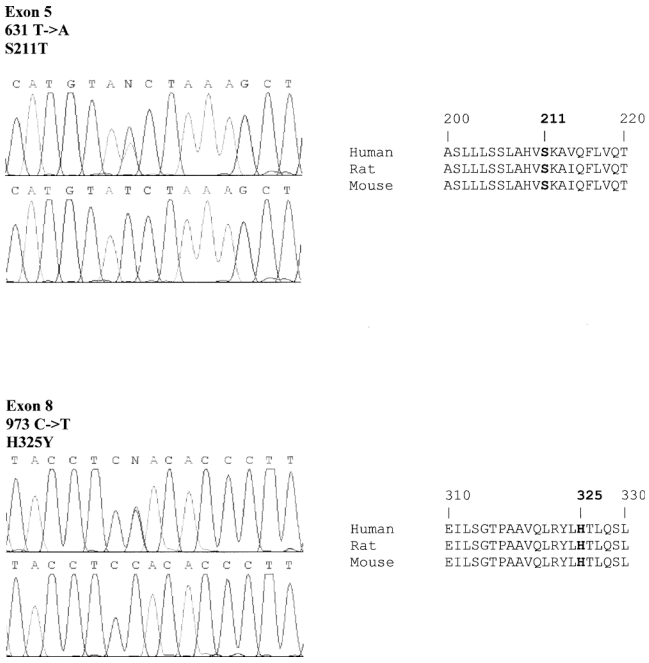

Fig. 1. Electropherogram of two new podocin mutations. Conservation of the mutated amino acids through species is also reported.

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Mycophenolate mofetil prevents development of urinary protein in autoimmune nephritis

To the Editor: Mycophenolate mofetil (MMF) is a potent immunosuppressant that has been successfully used in clinical organ transplantation [1]. Besides preventing acute and chronic rejection of the grafted organs postoperatively, MMF has a potential to prevent progression of nephropathy [2, 3]. Utimura et al [2] reported that administration of 10 mg/kg/day of MMF to Munich-Wistar rats